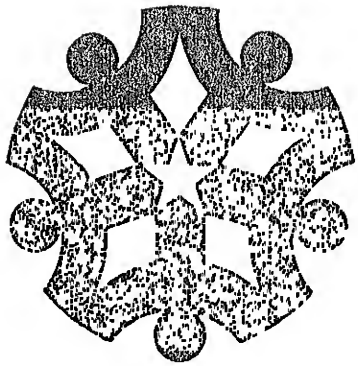

Programs for the Handicapped

CLEARINGHOUSE ON THE HANDICAPPED

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HIGHLIGHTS

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Rehabilitation Research In the Federal Government

by Helga Roth

Ask ten different people what they mean by rehabilitation research and the result will most likely be ten different answers. Medical people speak of primary intervention directed at impairment, secondary at functional limitation, and tertiary at disability. Purists would only consider tertiary intervention as rehabilitation. Others claim that rehabilitation deals primarily with "extracorporeal intervention." Thus a prosthetic limb would be rehabilitation, but a prosthetic heart valve would not; the amelioration of angina pectoris by an exercise reconditioning program would be rehabilitation, but a coronary bypass surgery would not. Researchers would readily agree that rehabilitation research includes all research maximizing the residual capabilities of a chronically handicapped individual, by either physical, psychological or vocational methods. Does that mean that research on architectural barriers is rehabilitation research?

Faced with this definitional problem, the Interagency Committee on Handicapped Research (ICHR) went to work in 1983 to create a consensus among its legislatively mandated membership on a working definition of "rehabilitation research "

ICHR was established by the Rehabilitation Act of 1978 within the framework of the National Institute of Handicapped Research (NIHR). In 1980 NIHR was among the offices that were transferred to the new Department of Education. ICHR is chaired by Douglas Fenderson, Ph.D., the Director of NIHR, and its executive director is Joseph Fenton, Ed.D. The legislation mandated that the Committee membership be comprised of "such members as the President may designate, including the Commissioner of the Rehabilitation Services Administration, the Commissioner of Education (changed to the Secretary of Education by the Rehabilitation Amendments of 1984), the Administrator of Veterans Affairs, the Director of the National Institutes of Health, the Secretary of Transportation, the Director of the National Science Foundation, and the Administrator of the National Aeronautics and Space Administration."

The ICHR is mandated to "identify, assess, and seek to coordinate all Federal programs, activities, and projects, and plans for such programs, activities, and projects with respect to the conduct of research related to rehabilitation of handicapped individuals." Obviously a common frame of reference and a definition acceptable to committee members were urgently needed to enable the ICHR to address its obligations. After a spirited exchange of opinions and painstaking clarification of concepts among ICHR's membership, the following REHABILITATION RESEARCH CRITERIA were adopted:

Research related to rehabilitation of handicapped individuals includes all studies directed towards new, improved or the modification of existing knowledge applicable to or impacting on:

> the functional restoration, improvement, or stabilization of physical, emotional, social, academic, and/or vocational performance and independence of physically and/or mentally disabled individuals.

The pursuit of knowledge may relate to.

- rehabilitation education, staff training methods, and skills used by rehabilitation and/or rehabilitation related personnel;
- methods and cost efficiency in the delivery of rehabilitation services;
- Instrumentation to measure function and evaluate the efficacy of rehabilitation intervention;
- rehabilitation engineering technology and/or adaption of devices and augmentative systems;
- identifying and reducing physical, psychosocial or environmental barriers (architectural, communication, transportation, housing, and additudinal);
- understanding the functional consequences of the disabling condition and the mechanisms producing, resolving or offsetting their consequences;
- techniques designed for better screening and identification of disability;
- prevention of secondary complications, recurrence or regression of functional loss;
- methods of assisting handicapped individuals to improve interpersonal relationships and their motivation to function independently.

Studies not directly concerned with rehabilitation which provide basic background information on research utilization and demographics should be included:

- methods of narrowing the time gap between the discovery of new knowledge, technology, and devices and their universal application (utilization) through effective dissemination of results to the rehabilitation community;
- acquisition and analysis of disability data to give a better understanding of the prevalence, nature and origin of specific disabling conditions and their relationship to other factors (demographic, social, interpersonal, economic, vocational, and health related variables, and those pertinent to service delivery).

After establishing a common framework of concepts and language, the ICHR went about identifying Federal agencies possibly involved in rehabilitation research and asking them for a description of the areas of their research activities and monies allocated to carry them out.

...responded to the ICHR and pro-
...scriptions of core areas of rehabilita-
...been and funded during FY 1983
...of tech

...Institute of Handicapped Research is the
...whose sole concern and mission is
...al and societal barriers imposed by
...the personal disability of an individ-
...ual on of function (motor, sensory and
...impairment

...research is being carried out through
...agreements and contracts Seventy-
...NIHR budget is used to support 30 Re-
...ng Centers and 15 Rehabilitation Engi-
...These centers of excellence conduct
...matic studies in the areas of NIHR
...In FY 1983 NIHR began awarding
...Rehabilitation Research Fellowships to
...research training opportunities for fu-
...academic leaders

...research grants in 1983 were awarded on
...priorities announced in the *Federal Register*,
...investigator-initiated research unconstrained
...priorities were initiated in FY 1984 and are
...to be continued at a level of 20 percent of the
...applications for the next few years

...the contribution of the National Institutes of
...NIH) towards rehabilitation research, we must re-
...that the primary mission of NIH, as constituted
...supporting, and conducting laboratory
...research to increase our understanding of life
...and the etiology, treatment, and prevention of
...President's Biomedical Research Panel 1976
...A cornerstone of NIH policies is the principle
...the support of basic knowledge is the foundation of all
...health sciences Another fundamental princi-
...investigator-initiated research holds the
...promise of significant discovery NIH has ac-
...complished its mission through its intramural and extra-
...programs Thirteen percent of its more than $4 bil-
...budget for 1983 was allocated to intramural
...which includes a Department of Rehabilitation
...at the NIH Clinical Center Five thousand new
...competing renewal research grant awards are made
...extramural research every year and some ten thou-
...research trainees receive support to assure tomor-

row's generation of seasoned researchers Other NIH responsibilities include support for research centers and research resources, biomedical communications, international activities, clinical trials, and emphasis on prevention of disease and promotion of health. The listing provides an idea of what percentage the individual institutes dedicated to rehabilitation research

War injuries and services to disabled veterans have always stimulated research in the rehabilitation field The Veterans Administration is carrying on a long tradition of supporting research on its large clinical population including many veterans with disabling conditions and by putting special emphasis on prosthetics and orthotics research.

The entire Veterans Administration program is intramural in the sense that it is conducted through VA hospitals in conjunction with medical schools. Medical research funds support investigators who spend about two-thirds of their time in VA-run facilities. Allocations to local VA facilities are made from the central office in Washington from the Director of Research in the Department of Medicine and Surgery. Local VA research committees related to local facilities approve individual applications During FY 1983, medical research programs were conducted at 123 VA installations including medical centers and outpatient clinics. Approximately 4,800 principal investigators participated in 5,770 research projects, a number of which are germane to rehabilitation.

A look at the three Federal agencies that sponsor the most rehabilitation research provides a good picture of the difference in their approaches. Speculations one sometimes hears that there is much duplication and overlap of programs may be exaggerated. Other Federal agencies which fund research do so in the areas of their mission, e.g., housing, transportation, or income maintenance. Some of this research includes aspects relevant to the disability and rehabilitation field. The listing provides brief descriptions of what these agencies considered relevant to rehabilitation research.

Inquiries for further information on the Interagency Committee on Handicapped Research should be directed to: Joseph Fenton, Ed.D., National Institute of Handicapped Research, Department of Education, Room 3066 Switzer Building, Washington, DC 20202

(See Federal Research Programs, page 11)

Challenges of the Economics of Disability

A national conference: "The Economics of Disability and the Impact of Rehabilitation," was held in May 1984 in Chicago by the National Association of Rehabilitation Research and Training Centers at the occasion of their annual meeting. The conference provided the stage for Monroe Berkowitz's presentation on the "Challenges of the Economics of Disability." Dr Berkowitz is Professor of Economics at Rutgers University and has performed a great deal of research in the disability area.

Berkowitz took pains to dispel the notion that economists care only about dollars and cents while rehabilitationists concern themselves with human values by assuring his audience that economists are fundamentally interested in human welfare and that the whole objective of the economic system is to maximize welfare. The difference in perspective between the two groups is that the economist recognizes that a movement to make somebody better off may result in making some other person worse off. The economist is more willing to face the allocation problem in a world of scarcity of resources: "How much should be spent where to achieve what objectives?"

Disability Costs

Berkowitz presented to his audience a rich agenda of research to be done and analyses to be made in order to meet the challenges of the economics of disability To start with he claimed that we do not have a good measure of disability costs which should include lost wages, losses suffered by other family members, the value of the extra time and effort spent in the activities of daily living, or the monetary equivalent of pain and suffering. More conceptual work must be done to measure the total or full losses imposed upon society by disability.

Several strategies offer themselves to minimize disability costs including prevention, rehabilitation and changes in society's attitude and accommodations. The economist would like to subject these programs and proposals to efficiency tests. Rehabilitationists have traditionally looked for figures which would assure them that their program pays back in taxes more than is spent on it. According to Berkowitz that was good enough in an earlier and simpler world but today a sophisticated, soundly based benefit-cost analysis which can withstand the scrutiny of the most professional of analysts is vital. Appropriate models and methodologies are at hand; however, we lack basic data about characteristics of persons entering the program, about outcomes, and particularly information about health and physical and mental functioning of persons when they enter and leave the program.

The Role of Government

Berkowitz raises some fundamental questions about the role of governmental intervention, why the government is in the human capital market, and whether the government's activities produce benefits that accrue to society as a whole over and above those that accrue to the individual Conceptual studies are needed to measure some of the utilities gained by the individual's family, and society as a whole when a mentally retarded or mentally ill person is removed from an institution. Berkowitz does not question the positive value of independent life, but urges conceptual studies as well as attempts at measurement

Another ever present problem has to do with the selection of clients, and too often, it is Congress' mandating priorities which determine that rather than individual's choosing We should ask which kinds of services work best for whom, and what do we pay for whatever equity conditions are imposed.

Job Displacement

Referring to the problem of job displacement—the job filled by a rehabilitated person may be one that would have been filled by somebody else—Berkowitz said he did not believe that that was necessarily so but that we should know more, theoretically and empirically, about the phenomenon of job displacement At the very least we could explore the relationship between the rehabilitation success rate and the business cycle.

Disincentives

Incentives and disincentives are perennial problems. There are no ideal solutions to disincentives which affect an individual's decision to work or not to work. But it is an area that needs to be looked at.

Berkowitz ventures that possibly it is necessary to re-examine the whole benefit process. He points to the unhappy "marriage" of rehabilitation and the disability awards machinery. Awards are mostly based on the so-called medical listings, while rehabilitation has tended to emphasize not the medical condition classifications but functional limitations and residual functional capacity of clients. Another problem is that the disability insurance program serves as a fall-back for people who because of age, lack of training, or obsolescence of skills are seeking disability benefits, and whose problems may not be susceptible to solutions by traditional rehabilitation techniques.

The Role of the Private Sector

Private sector employers are already quite conscious of the rising costs of health care. The challenge we all face is to discover the optimal role for the private sector in the battle to reduce the costs, the casualties, and the consequences of disability. Prevention of disability through intelligent job placement and other techniques is surely a fertile area for research as is the cost and consequences of early intervention.

(See Economics of Disability, page 6)

Vocational Education and Handicapped Students

*by Charlotte Conaway**

More than fifteen years have passed since the Vocational Education Amendments of 1968 dedicated a 10 percent set-aside of the grants to states for "vocational education for handicapped persons who because of their handicapping condition cannot succeed in a regular vocational education program without special educational assistance or who require a modified vocational education program," (Public law 90-576, Section 122(a)(4)(B))

This took place at a time when most states were not providing special education services at the secondary level. Vocational educators set out to serve a population, at the time poorly defined at the secondary level, with whom they were not familiar During the ensuing five years, most state departments of education added vocational education staff assigned to implement the sections of the law dealing with vocational education for handicapped and disadvantaged students. Programs were initiated and handicapped students were provided job preparation and training. In many states, vocational education and rehabilitative services worked cooperatively in delivering occupational education and other required services to secondary school youth and out of school youth and adults.

This paper will focus on the employment preparation and services provided to handicapped persons through vocational education in the secondary schools to coincide with the age levels served by special education. We will, out of necessity, discuss the present situation from a national vantage point using national totals and average.

The first year in which data were collected on numbers of handicapped students enrolled in vocational education was 1971-72. States reported serving 208,671 handicapped persons in vocational education.

TABLE 1
Handicapped Enrollment in Vocational Education

	1971	*1976*	*1982*
Total (Secondary, Post-Secondary, and Adult)	208,681	284,067	489,667
Secondary	Not collected	203,647	391,767

With the implementation of the Education for all Handicapped Children Act of 1975 came a new impetus for employment preparation for handicapped persons. Vocational education has, for the most part, been identified as the provider of this employment education. At the same time, in most states, special education has continued to provide job training through "work study" in lieu of occupational preparation programs offered by vocational education. Rehabilitation also provides job training to disabled students as do the Jobs Training Partnership Act program and proprietary schools.

Employment preparation for handicapped persons is a major component in that continuum of services so necessary in making the difference for disabled persons between a life of dependence and a life of independence, and vocational education will continue to make a significant contribution to this end. However, the source of the handicapped students' employment preparation is determined by the IEP team and based on the students' individual needs. Vocational educators need to know the criteria for placement of a student in vocational education, special education or a job training program for the delivery of employment preparation programs. Without these criteria, the possibility for duplication of effort is great.

The enrollment of handicapped persons in employment preparation programs operated by vocational education increased 95 percent between 1976 and 1982 and 135 percent between 1971 and 1982.

Vocational Educational served slightly over 30 percent of the 1,235,000 handicapped students enrolled in grades 9-12 in the nation in 1982 (based on 9.5 percent of secondary enrollment being handicapped). There are, no doubt, many more handicapped students in secondary schools who need and want occupational preparation programs. Perhaps the majority of these students are being served in alternative employment preparation programs provided by special education, rehabilitation or others. This points up a dire need for comprehensive and compatible data collection that would provide, among other things, a more complete picture of the numbers of handicapped persons enrolled in secondary education programs as well as the numbers receiving employment preparation from other sources.

As vocational education has increased the numbers of handicapped students served, it has also increased the number and percentage served in mainstream vocational education programs.

A study by Olympus Research Corporation in 1973 found that 69 percent of the vocational education projects included in the study sample served handicapped students in separate vocational classes. In 1982, according to the Vocational Education Data System (VEDS), 75 percent of the handicapped students in vocational education were in mainstream or regular programs.

The least restrictive environment concept from Public Law 94-142 has provided much of the impetus for this move from separate or specialized occupational prepara-

tion programs developed under the Vocational Education Amendments of 1968 (P.L. 90-576) to the enrollment of 75 percent of the handicapped students in mainstream vocational education programs in 1982.

Effective supplemental services for handicapped students in mainstream vocational education programs have been developed by school districts throughout the country. A conceptual model for the delivery of supplemental services to handicapped students is in evidence in nearly every state The model provides for a team of professionals (teachers, counselors, vocational evaluators and paraprofessionals) to provide the additional assistance required by the handicapped student.

The factors determining the vocational education learning environment for the handicapped student and the supplemental services provided are in the IEP.

The Individualized Education Plan (IEP) required by law and developed by Special Education should include documentation of the student's occupational interests and abilities and special needs that must be addressed. The IEP is essential to the vocational educator in determining the occupational program most appropriate and the supplemental services that will be required

Special educators must insure that vocational educators understand and are an integral part of the IEP process for each student entering a vocational education program. A copy of the IEP for each student enrolling in a vocational education program must be available to the occupational teacher and supplemental service staff. In some states these practices are standard operating procedure while in many states this cooperative involvement is not yet totally operational.

Vocational evaluation is yet another service available in many states to handicapped students entering vocational education programs. Vocational evaluation is a process of assessment of an individual's vocational interests, abilities and potential. Its purpose is to assist the secondary handicapped student and his or her parents and IEP teams to choose the most appropriate occupational preparation program. The results from vocational evaluation can further help the IEP team and the vocational education staff identify the needed supplemental services.

Vocational evaluation services are being provided to handicapped students by many school districts across the country, funded by vocational education and special education. However, the diversity—both philosophically and programmatically—found among the services offered has resulted in inconsistencies. Because vocational evaluation services carry different labels and vary markedly in content across the country and even within states, the overall effect of the services is diminished. The content of a service labeled "Vocational Evaluation" may consist of a one-day career education experience or comprehensive assessment experiences such as work sampling, psychometric test and critical observation.

Any school district planning to provide vocational evaluation services should consider purpose and process in terms of student outcomes desired. They should further determine how the vocational evaluation process will be integrated in the students' vocational education programs

The following generic and concise definition by Nadolsky (1981) captures the essence of effective vocational evaluation services available to handicapped students in vocational education: "Vocational evaluation is an assessment process designed to determine the probability of individuals achieving success in different vocations or careers by observing or measuring traits or characteristics that individuals possess, and relating these observed or measured results to the requirements of the work to be performed."

Vocational educators are well aware that their effectiveness in programming for handicapped students is in direct proportion to the degree that special educators, rehabilitation services staff and vocational educators work cooperatively toward the goal of preparing handicapped persons for employment. Toward this end, each of these programmatic areas has initiated activities to encourage interagency cooperation. Both research and experience illustrate the value of related service agencies cooperating in the delivery of services.

Examples of activities to encourage cooperative planning and programming include the National Workshop for the Development of Comprehensive Secondary Programs and Rehabilitative Services for Handicapped in 1979, the Leadership Training Institute programs on "Interagency Cooperation and Agreements In 1980," the development by the Wisconsin Vocational Studies Center of a *Handbook on Developing Effective Linking Strategies* in 1982, and a study on "Impact of State Comprehensive Cooperative Agreements on Local Vocational Education Programs for Handicapped Youth" by Hippolitus and Bregman in 1983.

"You've come a long way" is an apt description of the progress made by 1) vocational education in its ability to prepare handicapped students for employment; 2) special education in its ability to provide services to secondary students; and 3) the three programs—rehabilitation services, vocational education, and special education—in their ability to work cooperatively to improve services to disabled students.

But there are still challenges to meet and to quote Robert Frost "miles to go before we sleep." These challenges include:

- To increase emphasis on career development for disabled persons from kindergarten through adulthood including career education at the earliest possible age, career exploration followed by career preparation and job placement.
- The need for greater continuity of career development services for the disabled student/client from secondary school to adult learning experiences and employment.

- To ensure the inclusion of career development objectives in each disabled student's IEP at all levels
- Identification of the several agencies delivering occupational preparation programs and services to handicapped persons and the development of strategies for coordination and cooperation at state and local levels.
- To systematize the procedures for special education support of the supplemental services required by the handicapped student in the vocational education setting.
- To continue increasing the quality of the supplemental services available to handicapped students in vocational education.
- To continue increasing special educational resource services available to secondary, postsecondary and adult handicapped students.
- To increase awareness among special educators of the importance of vocational evaluation
- To increase the quality and consistency of the process of vocational evaluation among programs for the purpose of relating observed and measured individual traits and characteristics to the requirements of the work to be performed.
- Improve data collection in vocational education and special education to increase compatibility, comprehensiveness and reliability.

*Charlotte Conaway is a Senior Program Specialist with the Office of Vocational and Adult Education

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"Interagency Cooperation and Agreements," Policy Paper Series: Document 4 edited by James P. Greenan, Leadership Training Institute, Vocational and Special Education, College of Education, University of Illinois at Urbana-Champaign, May 1980.

Handbook on Developing Effective Linking Strategies, Wisconsin Vocational Studies Center, University of Wisconsin-Madison, January 1982.

Impact of State Comprehensive Cooperative Agreements on Local Vocational Education Programs for Handicapped Youth, Paul Hippolitus and Ralph Bregman, 1983 (ERIC #ED 233168)

"Vocational Evaluation in the Public Schools: Implications for Future Practice," J.M. Nadolsky, *Journal of Vocational Special Needs Education,* pp. 5–9, Spring 1981.

"An Assessment of Vocational Education Programs for the Handicapped under Part B of the 1968 Amendments to the Vocational Education Act," Final Report, p. 77, Olympus Research Corporation, Salt Lake City, 1974.

JAN: A New Service For Employers

An employer who wants to hire a qualified disabled applicant but is having a problem deciding on a job accommodation for the individual can now call 800-JAN-PCEH to learn what other employers did in a similar situation.

JAN are the initials of a Job Accommodation Network and PCEH are those of the parent body, the President's Committee on Employment of the Handicapped. The project's data base is at the West Virginia University Research and Training Center, a grantee of the National Institute of Handicapped Research.

JAN will enable employers to share information on a national scale about specific proven solutions to job accommodation problems. At first the system will be open only to employers, but at some point later to disabled people who need information about accommodations in jobs for which they are applying. Job accommodation information can often be supplied by the disabled applicant himself or by the rehabilitation counselor who referred the applicant to an employer. JAN can keep a company from trial and error by giving information about the successes and perhaps failures of other ideas about accommodation. It can also be a court of last resort when all suggestions have been considered

The Employers' Committee at PCEH is convinced that job accommodations hold down costs for companies. Beyond making it possible generally at a low cost to hire a qualified disabled person, they increase production and can cut the cost of workers' compensation by making it possible for injured employees to return to work.

Word about JAN, which is a computerized information system, is being circulated through governors' and mayors' committees on employment of the handicapped and via BUSNET, the Chamber of Commerce television network. To receive accommodation information employers may call 1-800-JAN-PCEH, except in West Virginia, the number is 1-304-293-7186.

Economics of Disability

(Continued from page 3)

If the basic thrust of disability policy is to provide independence and jobs rather than cash transfers, then employer incentives are paramount. What is surprising about the whole area of private sector involvement is that we know so little about it. We have many publicity reports and press releases on individual companies, but little hard data.

Berkowitz closed his presentation by assuring his audience that if there were no program of rehabilitation, somebody would invent it. But he asked whether we are making maximum use of what we already have, and whether we can get the machinery which is now in place to move into high gear.

New Analyses of Health Interview Survey Data

Some new analyses of the 1979 and 1980 National Health Interview Survey have recently been performed by Mathematica Policy Research, Inc , under contract to the Congressional Research Service, Library of Congress The Health Interview Survey is conducted yearly by the National Center for Health Statistics to produce national estimates for the prevalence of illness and disability; the occurrence of accidental injuries; and the use of hospital, medical, dental, and other services. Mathematica Policy Research prepared tabulations for public use microdata tapes on 1) chronic activity limitation, and 2) persons needing help in activities in daily living. Since these data are not now available to the public, they are reprinted below (see Tables A and B).

Chronic Activity Limitation

The 1979 Health Interview Survey collected data on chronic activity limitation (see Table A). The data are based on information collected by personal interview from a nationwide sample of about 42,000 households. These households yielded a sample of approximately 111,000 persons, who were representative of the civilian noninstitutionalized population of the United States. It is important to note that neither the survey nor the estimates derived from it reflect numbers of institutionalized persons or military personnel.

Household interviews were distributed over the year, with about 800 conducted each week. Estimates from the survey represent a twelve-month average rather than a specific point in time.

A chronic activity limitation refers to a restriction in activity as a result of a condition which was first noticed more than three months before the interview or which is one of several conditions always classified as chronic regardless of the date of onset. The degree of activity limitation is defined with respect to the major or usual activities of persons in four groups: preschool children, school-age children, housewives, and workers and all other persons. Each person's activity limitation is evaluated with respect to what is usual for his or her group.

Major findings from these data are highlighted below:

- Deformities or orthopedic impairments were the most commonly cited principal cause of chronic activity limitation among males in 1979, accounting for 16.1 percent of self-reported limitations. Deformities and orthopedic impairments were cited second most often by females, accounting for 14.4 percent of their reported limitations.
- Arthritis and rheumatism were the most common main case of limitation among females, accounting for 15.8 percent of self-reported limitations. Arthritis and rheumatism were the third most common cause of limitations among males: 8.2 percent of males cited arthritis or rheumatism as the main cause of their limitation.
- Heart disease was cited second by males and third by females as the main cause of activity limitation Heart disease accounted for 14.1 percent of the limitations reported by males and 10 7 percent of the limitations among females
- Hypertensive disease accounted for 5 1 percent of the limitations among females and 3.1 percent of the limitations among males Asthma accounted for 3 8 percent of the limitations among males and 3.3 percent of the limitations among females. Other conditions accounting individually for close to 3 0 percent of the limitations among males or females were diabetes, emphysema, visual impairments and neoplasms
- Altogether, 15 conditions accounted for all but one-third of the activity limitations reported by males and females Deformities or orthopedic impairments, heart disease, and arthritis or rheumatism were cited by 38 percent of the males and 41 percent of the females with chronic activity limitations.

Persons Needing Assistance in Activities of Daily Living

Table B presents estimates of the number of civilian, noninstitutionalized persons receiving or needing the assistance of another in performing seven basic physical activities and four home management activities The estimates were derived from data collected in the Home Care Supplement, included as part of the National Health Interview Survey in 1979 and 1980 Data were collected by personal interview of the nationwide sample of about 81,000 households (approximately 214,000 persons) in 1979 and 1980.

An important exclusion from this table is the population of institutions, many residents of which require assistance in the basic physical activities reported here

The household interviews were distributed over a two-year period, with about 800 conducted each week Estimates from the survey represent a 24-month average, not a single point in time.

Persons using special aids for mobility but not requiring the assistance of another person are excluded from the counts of persons needing assistance in basic physical activities. If such persons were included, the overall estimate of persons requiring assistance in walking would be nearly doubled. Estimates of persons requiring assistance in other activities would be affected much less substantially, however.

Key facts from the survey are given below

- An estimated 2.6 million noninstitutionalized persons with chronic health problems received or needed the help of another person in performing one or more basic physical activities in 1979–1980. Of these persons, 752,000 required assistance in four or more of seven activities, and another 865,000 required assistance in two or three activities.
- Assistance was needed most often for going outside: 1.7 million persons required assistance for this purpose

TABLE A

PERSONS WITH CHRONIC ACTIVITY LIMITATION BY CHRONIC CONDITION REPORTED AS MAIN CAUSE OF LIMITATION: CIVILIAN NONINSTITUTIONALIZED POPULATION, 1979

Impairment or chronic condition	Males				Females			
	Total	Limited, but not in major activity	Limited in amount or kind of major activity	Unable to carry on major activity	Total	Limited, but not in major activity	Limited in amount or kind of major activity	Unable to carry on major activity
Total (thousands of persons)	15,337	3,775	5,773	5,789	16,159	4,244	9,830	2,086
Total percent	100.00	100 00	100.00	100 00	100 00	100 00	100 00	100 00
Deformities or orthopedic impairments	16 14	23 98	17 50	9 67	14 42	15.99	14 85	9 20
Back or spine	7 29	8 28	9 56	4 37	8 16	7 48	9 27	4 27
Other location	8.85	15 70	7 94	5 30	6 26	8.51	5 58	4 93
Heart disease	14 11	8 15	12 42	19 69	10 66	6 83	12 21	11 13
Arthritis/rheumatism	8.18	6 17	7 96	9 70	15 80	14 19	16 99	13 48
Hypertensive disease	3 09	2 75	3 34	3 05	5 13	5 27	5 43	3 47
Asthma	3 82	6 19	5 21	0 88	3 27	5 12	2 93	1 10*
Diabetes	2 40	2 64	2.20	2 44	2 96	3 20	2 86	2 98
Visual impairments	2 75	3 98	1 93	2 78	2 00	2 57	1 37	3 82
Neoplasms	2.00	1 00	1 80	2 85	2 63	2 08	2 40	4 82
Emphysema	2 97	1.02	2.31	4 90	1 04	0 70*	1 10	1 44*
Paralysis, complete or partial	2.32	1 63	2 12	2 96	1 62	1 39	1 13	4 43
Specified mental disorder	2 15	1.31	1 50	3 36	1 60	1 20	1 40	3 32
Hearing impairments	1.93	4 40	1 77	0 47*	1 45	3 54	0 78	0 41*
Nervousness/depression	1 23	0 47*	0.90	2 05	1 76	1 61	1 84	1 72
Cerebrovascular disease	1.55	0 44*	0 74	3 08	1 26	0 69*	0 73	4 89
Hernia	1 14	1 15	1.59	0 67	0 92	0 74*	1 05	0 66*
All other conditions	34 23	34.71	36.69	31 46	33 48	34 87	32 95	33 14
Impairments	5 31	5.06	6 96	3 82	3 07	2 38	3 01	4 79
Musculoskeletal conditions	5.92	6 32	6 90	4 68	5 52	4 34	6 26	4 40
Circulatory conditions	2 99	1 96	2.18	4 48	3 16	2 52	3 18	4 33
Respiratory conditions	3 38	3 83	3 36	3 09	2 67	3 92	2 46	1 14
Digestive conditions	1 84	1 52	1 91	1 97	2 07	1 61	2 34	1 69
Other conditions	14.80	16 02	15 38	13 42	16 99	20 10	15 70	16 79

*Figure has low statistical reliability or precision (relative standard error exceeds 30 percent)

SOURCE: National Center for Health Statistics, 1979 National Health Interview Survey, original tabulation prepared from public use tape by Mathematica Policy Research

TABLE B

PERSONS NEEDING HELP IN BASIC PHYSICAL ACTIVITIES AND HOME MANAGEMENT ACTIVITIES BECAUSE OF A CHRONIC HEALTH PROBLEM: CIVILIAN NONINSTITUTIONALIZED POPULATION, 1979-1980

Activity	Thousands of persons by age					Rate per 1,000 persons by age				
	Total	Under 17 years	17-44 years	45-64 years	65 years and over	Total	Under 17 years	17-44 years	45-64 years	65 years and over
Basic physical activities[1]										
Walking	1,293	63	145	296	789	6 0	1 1	1 6	6 8	33.4
Going outside	1,671	71	137	341	1,123	7 7	1 2	1 5	7 8	47 5
Bathing	1,355	88	148	286	833	6.2	1 5	1 6	6 6	35 3
Dressing	1,092	92	153	268	580	5 0	1 6	1 7	6 2	24 6
Using the toilet	686	61	90	137	398	3 2	1 1	1 0	3.1	16.9
Getting in or out of bed or chair	723	45	106	189	383	3 3	0 8	1 2	4 3	16 2
Eating	319	37	52	64	166	1 5	0 6	0 6	1 5	7 0
One or more	2,590	134	281	614	1,558	11 9	2.3	3.1	14 1	66 0
One only	973	32	98	242	601	4.5	0 6	1 1	5 6	25 4
Two or three	865	46	103	217	499	4.0	0 8	1 1	5 0	21 1
Four or more	752	56	81	155	458	3.4	0.9	0 9	.3 6	19 4
Home management activities										
Shopping	3,056	68	361	679	1,948	14 1	1 2	3 9	15 6	82 5
Doing chores	2,912	51	340	800	1,722	13.4	0.9	3 7	18.4	72 9
Preparing own meals	1,897	54	256	433	1,153	8 7	0.9	2 8	10 0	48 8
Handling money	1,398	61	275	255	809	6 4	1 1	3 0	5 9	34.3
One or more	3,983	83	551	1,010	2,339	18 4	1 4	6 0	23 2	99 0
One only	1,354	16*	208	395	735	6 2	0 3*	2 3	9 1	31.1
Two or three	1,736	36	227	457	1,016	8 0	0.6	2 5	10 5	43 0
All four	893	31	116	158	588	4 1	0 5	1 3	3 6	24.9

tatistical reliability or precision (relative standard error exceeds 30 percent).
s the help of another person or does not do the indicated activity because of a chronic health problem

l Center for Health Statistics, 1979 and 1980 National Health Interview Survey; original tabulation prepared from public use tapes by Mathematica Policy Research

TABLE A

PERSONS WITH CHRONIC ACTIVITY LIMITATION BY CHRONIC CONDITION REPORTED AS MAIN CAUSE OF LIMITATION CIVILIAN NONINSTITUTIONALIZED POPULATION, 1979

Impairment or chronic condition	Males				Females			
	Total	Limited, but not in major activity	Limited in amount or kind of major activity	Unable to carry on major activity	Total	Limited, but not in major activity	Limited in amount or kind of major activity	Unable to carry on major activity
Total (thousands of persons)	15,337	3,775	5,773	5,789	16,159	4,244	9,830	2,086
Total percent	100.00	100 00	100 00	100 00	100 00	100 00	100.00	100 00
Deformities or orthopedic impairments	16 14	23 98	17 50	9 67	14 42	15 99	14 85	9 20
Back or spine	7.29	8 28	9 56	4 37	8.16	7 48	9 27	4 27
Other location	8 85	15 70	7 94	5 30	6 26	8 51	5.58	4 93
Heart disease	14 11	8 15	12.42	19 69	10 66	6 83	12 21	11 13
Arthritis/rheumatism	8 18	6 17	7 96	9 70	15.80	14 19	16 99	13 48
Hypertensive disease	3 09	2 75	3 34	3.05	5 13	5 27	5 43	3 47
Asthma	3 82	6 19	5 21	0 88	3 27	5 12	2 93	1 10*
Diabetes	2.40	2 64	2.20	2 44	2 96	3 20	2 86	2 98
Visual impairments	2 75	3 98	1 93	2.78	2 00	2 57	1 37	3 82
Neoplasms	2 00	1 00	1 80	2.85	2 63	2 08	2 40	4 82
Emphysema	2 97	1.02	2 31	4.90	1.04	0 70*	1 10	1 44*
Paralysis, complete or partial	2 32	1 63	2 12	2 96	1 62	1 39	1 13	4 43
Specified mental disorder	2 15	1 31	1.50	3 36	1 60	1 20	1 40	3 32
Hearing impairments	1 93	4 40	1 77	0 47*	1 45	3 54	0 78	0 41*
Nervousness/depression	1 23	0 47*	0 90	2 05	1 76	1 61	1 84	1 72
Cerebrovascular disease	1.55	0 44*	0 74	3.08	1 26	0 69*	0 73	4 89
Hernia	1 14	1 15	1 59	0.67	0 92	0 74*	1 05	0 66*
All other conditions	34 23	34 71	36.69	31 46	33.48	34 87	32 95	33 14
Impairments	5 31	5 06	6 96	3 82	3 07	2 38	3 01	4 79
Musculoskeletal conditions	5 92	6 32	6 90	4.68	5 52	4 34	6 26	4 40
Circulatory conditions	2 99	1.96	2.18	4 48	3 16	2 52	3 18	4 33
Respiratory conditions	3 38	3 83	3.36	3 09	2 67	3 92	2 46	1 14
Digestive conditions	1 84	1 52	1 91	1 97	2 07	1 61	2 34	1 69
Other conditions	14 80	16 02	15 38	13 42	16 99	20 10	15 70	16 79

*Figure has low statistical reliability or precision (relative standard error exceeds 30 percent)

SOURCE. National Center for Health Statistics, 1979 National Health Interview Survey, original tabulation prepared from public use tape by Mathematica Policy Research

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*Figure has low statistical reliability or precision (relative standard error exceeds 30 percent)

[1]Needs or receives the help of another person or does not do the indicated activity because of a chronic health problem

SOURCE. National Center for Health Statistics, 1979 and 1980 National Health Interview Survey; original tabulation prepared from public use tapes by Mathematica Policy Research

Most frequency, 1.4 million persons required assistance in bathing and 1.3 million received or needed assistance in walking. At the low end, 319,000 required assistance in eating.

- Between one half and two-thirds of those requiring assistance in each type of activity were 65 years of age or older.
- Rates of dependence increased sharply in middle age and later. The need for assistance in one or more basic personal activities was 2.3 per thousand among persons under 17 years and 3.1 per thousand among those 17–44 years of age. The rate rose to 14.1 per thousand in the 45–64 age group and 66.0 per thousand (or 6.6 percent) among those 65 and older.
- An estimated 4.0 million individuals received or needed personal assistance in one or more home management activities. Of these, 893,000 required assistance in all four activities, and 1.7 million received assistance in two or three activities.
- Assistance was needed most frequently in shopping for personal items. 3.1 million persons required assistance of this kind. A comparable number, 2.9 million, needed assistance in doing routine household chores while 1.9 million needed help in preparing their own meals, and 1.4 million needed help in handling their own money.

Arthritis Services Network

A new project entitled "Arthritis Services Network" has been approved for joint sponsorship by the Administration on Aging, Department of Health and Human Services, and the National Institute of Handicapped Research, Department of Education.

The project was proposed by the Arthritis Foundation to address three issues: 1) the wellness of elderly persons with arthritis, 2) gaps in their care not currently being met by existing human service providers; and 3) cost containment.

The Foundation states that although the lifespan of our citizens has increased dramatically since 1900, "the quality of life of the elderly is not always optimal." Statistics show that over 80 percent of older persons have at least one chronic handicapping condition and that arthritis heads the list. Approximately half of the 25 million people 65 and older report having arthritis, and physical evidence of arthritis can be found in 80 percent. According to the Foundation, "Wellness is a composite of physical, social and psychological well-being. Positive health is more than a biological phenomenon. The ability to function in society and fulfill desired roles and life goals is also important."

According to the Foundation, it cannot presently reach and serve all elderly people with arthritis. Many of these persons live in rural communities and other areas which cannot be adequately served by the Arthritis Foundation chapters and where there are serious shortages of health care professionals. Further, the operation of health promotion activities and other needed components of a comprehensive arthritis care program are being threatened by a number of cost containment measures that are expected to reduce the services of extended health professionals, e.g., occupational and physical therapists and social workers, thereby confronting the growing population of elderly people with more expensive disease care services.

The Foundation has developed four programs which are intended to augment professional services provided by the health care system. The programs have demonstrated effectiveness in improving the health status of the elderly person with arthritis through a number of operating pilot programs. The programs include an Arthritis Self-Help Course, Arthritis Aquatic Program, Arthritis Exercise Program, and Arthritis Support Group Program.

The Foundation proposed that a functional network of human services agencies be established to continue and expand the use of the existing programs. The principal tasks of the Arthritis Services Project will be to:

- Establish a national Arthritis Service Network of existing agencies, businesses, and industry through which the four programs will be disseminated;
- Train at least 3,000 non-traditional care providers (elderly lay volunteers) to conduct arthritis health promotion activities for their peers with arthritis; and
- Provide approximately 30,000 elderly people with the opportunity to participate in the four arthritis programs.

Primary components of the new system will include a National Advisory Council which will provide overall project guidance; and Regional Program Coordinators who will carry out the project activities within their assigned regions by establishing interagency collaboration, conducting and coordinating training activities for the volunteers, and marketing the project to the elderly population.

The Arthritis Foundation plans to use this model to continue to expand its services network through the service networks of other appropriate organizations and agencies.

Rehabilitation Research

(Continued from page 2)

Federal Agency Research Programs
Rehabilitation of Handicapped Individuals

NR–Not Reported
NA–Not Applicable

Department; Agency; Representative	Core Rehabilitation Research Areas	Research Budget FY 83	Rehabilitation Budget FY 83
Architectural and Transportation Barriers Compliance Board (ATBCB) Rep: Robert Johnson Tel: (202) 245-1591	Establishment of minimum technical and usage requirements for accessibility standards issued under the Architectural Barriers Act of 1968, as amended. Investigate and examine alternative approaches to the architectural, transportation, communication, and attitudinal barriers confronting handicapped individuals. Specific research projects active in FY 83 are the development and evaluation of (1) detectable tactile surface treatment, (2) multidisciplinary assessment of signage, (3) telecommunication devices, (4) alarms and alarm systems, and (5) ATBCB Library Computer Application.	$550,000	$550,000
Department of Education:			
National Institute of Handicapped Research (OSERS) Rep: Richard Leclair Tel: (202) 732-1192	Provides leadership and support for a national and international program of comprehensive and coordinated research regarding the rehabilitation of handicapped individuals; disseminates information; funds Research and Training Centers, Rehabilitation Engineering Centers, Research and Demonstration and Research utilization projects; awards fellowships; authorized by P.L. 95-602. Projects include functional electrical stimulation; musculoskeletal disorders; research concerning worksite modification and employability, medical rehabilitation (various); brain trauma; multiple sclerosis, geriatric rehabilitation, mental retardation, spinal cord dysfunction, deafness and nonvocal communication, blindness and low vision; transportation and elimination of barriers to handicapped; prosthetics and orthotics, mental health.	28,000,000	28,000,000
Rehabilitation Services Administration (OSERS) Rep: David Henderson Tel: (202) 732-1287	Basic vocational rehabilitation, blind and visually handicapped, deaf-blind handicapped, migratory workers, rehabilitation facilities, projects with industry, recreation, American Indian VR, independent living.	2,000,000	2,000,000
Office of Special Education Programs (OSERS) Rep: Dr. Wendy Cullar Tel: (202) 732-1007	Applied research in educating handicapped children. Development of models of exemplary practices in coordinating special education and vocational rehabilitation services.	12,000,000	12,000,000

Department; Agency; Representative	Core Rehabilitation Research Areas	Research Budget FY 83	Rehabilitation Budget FY 83
Department of Health and Human Services: Administration on Aging Office of Human Development Services (HDS) Harry Posman, Ph D Tel (202) 245-0350	Community and family-based care, developmental disabilities; the elderly, and the family	NR	2,358,000
Administration on Developmental Disabilities (HDS) Rep Jean K Elder, Ph D Tel (202) 245-2890	(1) Project designed to assist State and local governments in improving fire and life safety measures in adult boarding homes. (2) Projects to establish a model training, dissemination and coordination program that will address barriers to mental health services for developmentally disabled persons FY 84, (3) Project to address the special needs of older minority and handicapped children, core area programs include the development of strategies to assist adoption families to cope with problems and stresses of adopting a developmentally disabled child, and strategies to assist developmentally disabled persons to enter or remain on the job market	2,500,000	2,500,000
Alcohol, Drug Abuse, and Mental Health Administration Rep Donald Ian McDonald Tel. (301) 443-4797	Basic or fundamental research of the metabolic, or anatomic processes relating to alcohol and drug abuse, and mental illness, as well as applied and developmental research of treatments for individuals with alcohol, drug abuse, or mental health disabilities.	239,968,000	77,716,000
Health Care Financing Administration Rep David Butler, Ph D Tel (201) 597-3195	End Stage Renal Disease Program; Expanded Medicare and Medicaid Alcoholism Services; Mentally retarded/developmentally disabled individuals; Physically disabled individuals in specialized institutions; Medicare use by disabled, long term care for the elderly.	29,000,000	4,000,000
Health Resources and Services Administration Bureau of Health Care Delivery and Assistance Division of Maternal and Child Health Rep Vince L. Hutchins, M.D. Tel· (301) 443-2170	Prostheses, neurobehavioral assessment, central nervous system organization and cognitive development, developmental disabilities; learning disabilities; cerebral palsy; child health and development, prematurity, mother-infant interaction language.	3,500,000	1,500,000
Office of Assistant Secretary for Management and Budget Rep: John J O'Shaughnessy Tel: (202) 245-6396	Development of Uniform Federal Accessibility Standards; Provision of reader, interpreter, and personal assistant services.	NA	NA
Office of Assistant Secretary for Personnel Administration Rep· Thomas S McFee Tel: (202) 245-7717	Evaluation of operation of DHHS Employee Counseling Service for Federal employees with alcohol, drug and/or emotional problems in terms of the program's cost benefit and cost effectiveness. Conduct a one-year pilot study, with a community hospital, to provide out-patient alcoholism treatment for alcoholic Federal employees.	NR	NR

Department; Agency; Representative	Core Rehabilitation Research Areas	Research Budget FY 83	Rehabilitation Budget FY 83
Office of Assistant Secretary for Planning and Evaluation Rep: JoAnn Gasper Tele (202) 245-6443	Conduct of Medicare mental health demonstration to: examine the effect of a change in medicare Part B mental health benefit package expanding the range of eligible Part B providers in terms of beneficiary and service utilization, effects on administration and costs Longitudinal study of de-institutionalization to determine the cost of establishing a comprehensive commissary service delivery system for severely mentally retarded persons, assessment of the impact on the mentally retarded, families and the community. Conduct of Long Term Care Channelling Demonstration to test two models of organizing community care as alternatives to the current institutionally oriented system. Conduct of National Long-Term Care (Medicare recipients) survey, and the survey of informal care givers The National Long Term Care survey provides information on impairment and socio-demographic data on a sample of non-institutionalized Medicare recipients.	14,718,000	8,320,000
Social Security Administration Office of Research, Statistics and International Policy Rep: John J. Carroll Tel: (202) 673-5602	(1) Analyses of the impact of the 1980 Social Security Amendments: Study of Continuance of DI and SSI disability benefits for persons in approved VR program; (2) Evaluation of New Rehabilitation Reimbursement Provisions (1981 Omnibus Budget Reconciliation Act): Study of impact of reduced VR expenditures by SSA on DI beneficiary rehabilitation and benefit termination rates; (3) Development of Data on Disabled Persons: Preparation and editing of data from personal interviews and SSA administrative data files for general research and SSA program-specific studies of disability	18,729,000	43,000
National Institutes of Health: National Institute on Aging Rep: T. Franklin Williams, M.D. Tel: (301) 496-9265	Epidemiological research on illness and functional disability in the elderly, specifically, cognitive rehabilitation of post-stroke patients, "bladder retraining" techniques; techniques of coping with physical and mental disabilities.	61,000,000	2,500,000
National Institute of Arthritis, Diabetes and Digestive and Kidney Diseases (NIH) Rep: Dr. Pierre Renault Tel: (301) 496-5877	Musculoskeletal and bone diseases; diabetes, arthritis, kidney diseases, skin diseases.	378,500,000	9,500,000
National Cancer Institute (NIH) Rep: Peter Greenwald, M.D. Tel: (301) 496-6616	Research on speech following oropharyngeal or laryngeal cancer; segmental bone and joint replacement after tumor surgery; development of prosthetic appliances and bio-materials for rehabilitation of amputated cancer patients; improvements in patient counseling methods to foster social support and better adaptation.	987,642,000	1,400,000
National Institute of Child Health and Human Development (NIH) Rep: Sumner Yaffe, M.D. Tel: (301) 496-5097	Mental retardation, developmental disabilities, medical treatment, education.	239,941,000	3,400,000

Department; Agency; Representative	Core Rehabilitation Research Areas	Research Budget FY 83	Rehabilitation Budget FY 83
Clinical Center (NIH) Rep Lynn Gerber, M D Tel (301) 496-4733	Evaluation of long leg braces in management of osteogenesis imperfecta; measurement of function in patients with sarcoma; biomechanics of motion in amputees and rheumatoid arthritis; electro-diagnosis of vincristine neuropathy; techniques for evaluating food disorders, evaluation of the occupational behavioral model for functional assessment; measurement of grip strength and individual finger force; evaluation of tongue, pharynx, and swallowing, using ultrasound; ultrasound evaluation of muscle; electronic diagnosis in Alzheimer's disease patients.	NA	75,000
National Institute of Dental Research (NIH) Rep Harald Löe, D.D S Tel (301) 496-3571	NIDR supports research on the etiology, pathology, diagnosis, treatment, and prevention of cleft lip and cleft palate, and other congenital anomalies and syndromes. It also supports research on restorative materials used in prostheses to compensate for loss of facial structure due to disease or trauma.	78,860,000	4,103,000
National Eye Institute (NIH) Rep Constance Atwell, Ph.D *Tel: (301) 496-5301*	Research aimed at enabling partially sighted or totally blind people to perform important tasks in school, at the workplace, or in leisure activities Better characterization of the effect of specific diseases on vision, assisting those with visual problems to make most effective use of their remaining sight; design, development, and evaluation of optical aids, video-magnification or image enhancement systems; more effective use of peripheral vision; devices for the totally blind aimed at increasing mobility and orientation performance, or enabling the blind to read materials not available in braille.	135,791,000	4,000,000
National Institute of General Medical Sciences (NIH) *Rep Americo Rivera, Ph D.* Tel. (301) 496-7001	Bioengineering efforts directed to the introduction of new concepts in the development of prosthetic instruments and devices and the study of biomaterials of potential use in prosthetics.	307,000,000	737,000
National Heart, Lung, and Blood Institute (NIH) Rep Claude Lenfant, M D. Tel: (301) 496-5166	Sickle cell anemia, heart disease rehabilitation methods	NR	1,980,000
National Institute of Neurological and Communicative Disorders and Stroke *Rep: Murray Goldstein, M.D.* Tel (301) 496-9746	*Intramural—research on the quantification* of disability *Extramural*—Communicative disorders, assistive hearing devices, assistive speech devices, assessment of hearing intervention, speech intervention, techniques, stroke sequelae, central nervous system trauma; developmental and neuro-muscular disorders, demyelinating, atrophic and dementing disorders; defining spinal somesthetic pathways, behavioral management of Parkinsonian symptoms; fundamental neuroscience; biometry, and field studies of brain-injured patients.	297,064,000	17,870,000

Department; Agency; Representative	Core Rehabilitation Research Areas	Research Budget FY 83	Rehabilitation Budget FY 83
Division of Research Resources (NIH) Rep: Francis J. Kendrick, D.D S., Ph.D Tel: (301) 496-4390	Causes of loss of function, rehabilitation methods, means to increase quality of life; tissue regeneration, biomechanics of disuse atrophy; memory rehabilitation; psychosocial impacts of disability; devices and prostheses development.	206,874,000	1,265,000
Department of Housing and Urban Development Rep: John Putnam Tel: (202) 755-7149	Research and Demonstrations which meet the needs of groups with special housing needs, including the elderly, the handicapped, the displaced.	18,000,000	75,000
National Aeronautics and Space Administration Rep: Donald J Vargo Tel: (202) 453-8415	Prevention, treatment, living aids, communication, mobility aids.	1,562,000,000	400,000
National Science Foundation Rep: Vacant Tel: (202) 357-9618	Functional electrical stimulation, identification of speech patterns suitable for tactile displays, investigation of anatomical and behavioral patterns critical for speech production; development of algorithms for speech production systems.	2,000,000	2,000,000
Department of Transportation Rep: Dr. Ira Laster, Jr. Tel: (202) 426-4361	Wheelchair lift research training techniques for mass transit utilization, information dissemination, safety manual development	NR	190,000
Veterans Administration Department of Medicine and Surgery Rep: Margaret J. Giannini, M.D. Tel: (202) 389-5177	Prosthetics/amputation, spinal cord injury, and sensory aids including diagnostic procedures and surgical techniques, internal joints, gait analysis. Voice controlled robotics, computer controlled functional electrical stimulation, development of improved wheelchairs; telecommunication aids for the visually impaired, computer based hearing aids for the deaf, computer assisted therapy for aphasia-stroke patients. Clinical rehabilitation research	154,839,000	9,887,000
TOTAL		4,780,476,000	198,369,000

SOURCE: 1983 Annual Report of the Interagency Committee on Handicapped Research

Planning for Supported Employment

Of all the ideas which go into planning for the transition of disabled youth from school to work, "supported employment' appears to be the least defined and most in need of program development

Recognizing that, the Office of Special Education and Rehabilitative Services assembled a group of Mental Retardation Sate Directors, Vocational Rehabilitation State Directors, researchers and program developers under the chairmanship of G Thomas Bellamy, Ph.D. and Richard Mella, Ph D to define and clarify the concept in preparation for a new program to be funded in the 1985 budget through the Rehabilitation Services Administration. Three broad issues were discussed· What is supported employment, how does it relate to other elements of the service system, and how could relative quality of supported employment be determined

Three criteria must be met to qualify a program as "supported employment":

1 The individual must be engaged in employment which creates goods or services that have economic value and for which the employer pays wages. The employment may be part-time or full-time and may be compensated by above or below the minimum wage.

2 The individual must require ongoing support, expected to endure throughout the period of employment. This support is designed to provide assistance to the individual and employer.

3 The individual must have some demonstrated opportunity for social integration with persons without disabilities who are not paid caregivers.

Some important distinctions and relationships of supported employment with other parts of the service system were highlighted as follows·

• Since vocational rehabilitation does not typically provide sustained support throughout a period of employment, supported employment is not a method of delivering vocational rehabilitation services.
• Some sheltered workshops and rehabilitation facilities provide supported employment services, while others are designed as transitional programs leading to competitive employment. Typically, they serve a more capable clientele than that for whom the supported employment program is designed

• In most cases Mental Retardation Agencies administer day programs for persons with severe handicaps for whom the supported employment program is primarily designed.
• Independent Living Centers (ILC) share with supported employment a focus on persons who may require ongoing support. ILCs, Mental Retardation Agencies, and Rehabilitation Facilities could provide the ongoing services required to maintain supported employment.
• Employment preparation programs provide time limited services leading to competitive, unsupported employment. They are successful when services can be terminated. Supported employment programs can be evaluated in terms of the wages and employment benefits received by individuals with disabilities.

Since supported employment will be provided by a variety of different program strategies, it will be important to develop quality indices so that alternatives can be assessed and compared at the individual, program, and state levels. These indices may include level of earnings, the degree of integration at the workplace, the quality of working life and longer-range employment benefits such as job mobility, advancement, and security, and the quality of life achieved by the working individual.

Since supported employment programs are meant to **change** how existing services are provided, eligibility will be partially determined by the participating states and whom they serve now, especially in the day activity programs for which supported employment programs are designed as alternatives.

Finally discussion revolved around how grants to states be structured to achieve maximum results and what requirements and/or criteria should be used to select participating states.

A more comprehensive summary of the conference is available from Richard Mella, Ph.D., National Institute of Handicapped Research, Mail Stop 2305 Switzer Building, Washington, DC 20202.

Request for Information

The Epilepsy Foundation of America is initiating a new service called the Program Exchange and is seeking information on programs which are successfully serving people with epilepsy and other disabilities. The goal of the Program Exchange will be to provide technical assistance to EFA affiliates and other organizations which wish to start programs for people with epilepsy and need a proven model on which to build. Working toward this goal, EFA is seeking information on successful programs in areas such as respite care, independent living services, recreation and camping, education, self-help, family support, vocational training, and fund-raising. Send to: Epilepsy Foundation of America, Program Exchange, 4351 Garden City Drive, Landover, MD 20785.

Late Effects Of Poliomyelitis

Medical centers across the nation are receiving inquiries from patients who contracted polio more than 30 years ago and are now experiencing a marked increase in fatigue, weakness and pain

A message from the National Symposium on the Late Effects of Poliomyelitis to the 300,000 Americans who survived polio during the epidemics of the 1940s and 1950s is to be concerned, not frightened, and get medical help if such symptoms occur

According to a news release from the Roosevelt Warm Springs Institute for Rehabilitation in Georgia, where the symposium was held in late May, as many as one in four survivors of polio are now experiencing changes that require medical attention. Forty researchers and physicians, some of whom are polio survivors, attended the symposium and agreed to share basic research and clinical experiences to determine whether the problem is more common than they previously thought, to develop an evaluation and protocol procedure, and to increase awareness of the problems of the post-polio patient among the lay, medical and funding communities. The group plans to meet in Warm Springs again next year.

According to Dr. Lauro Halstead, a leader in rehabilitation research and chairman of the meeting, "A group of the physician researchers who have been working on post-polio problems in isolation plans to publish information for post-polio patients, their physicians, and the medical research community."

The Roosevelt Warm Springs Institute for Rehabilitation, formerly the Georgia Warm Springs Foundation, is one of the most comprehensive rehabilitation facilities in the nation. It was established by Franklin D. Roosevelt for the aftercare of persons with polio. The address for the Institute is P.O. Box 1000, Warm Springs, GA 31830-0268, (404) 655-2620.

Polio Handbook Now Available

The Gazette International Networking Institute, publishers of the *Rehabilitation Gazette*, has announced the availability of a *Handbook on the Late Effects of Poliomyelitis for Physicians and Survivors*, edited by Gini Laurie, Fredrick Maynard, M.D., D. Armin Fischer, M.D., and Judy Raymond. The handbook is designed to provide information about the clinical problems associated with the residuals of polio. According to estimates, post-polio muscular atrophy affects approximately 60,000 people and is described as the development of slowly progressive muscular weakness and the loss or dysfunction of motor neurons 20–30 years after recovery from acute polio.

The handbook's dictionary format will be useful to physicians and other health care professionals who may be treating a polio survivor for the first time Topics include. aging and weakness, arthritis, diet, exercise, frog breathing, hospitalization, misdiagnoses, muscle weakness, oxygen misuse, respiratory insufficiency, sleep apnea, tracheotomy, vaccines, and ventilators. The handbook will help polio survivors understand the problems they are experiencing and gives them information to present to their physicians about post-polio muscular atrophy.

The handbook is available for $5 postpaid from: Gazette International Networking Institute, 4502 Maryland Avenue, St. Louis, MO 63108, (314) 361-0475

Service Patterns for Elderly MR Persons

A nationwide study of programs which serve elderly mentally retarded individuals is being conducted by Boston University and Brandeis University. Until recently, little attention has been focused on the special service needs of this group. However, with improved medical care and better services, more and more mentally retarded persons are living to an older age. Service providers and policymakers have become increasingly concerned about how to best develop and improve programs that can meet the changing needs of aging mentally retarded people.

While elderly mentally retarded persons are often not recognized as a distinct group, they are currently being served by a variety of programs. Project staff is interested in locating programs which have a special focus on the residential, recreational and/or vocational needs of this population. They hope to develop a comprehensive nationwide list of agencies and programs that currently serve older mentally retarded persons.

Once this list is developed, the programs will be contacted by telephone. "Model programs" providing particularly unique and/or effective services will be visited and then described in case studies to illustrate the range of services provided to elderly mentally retarded persons nationwide. These findings will be useful in guiding the development of new services and in helping current providers to improve existing programs.

For more information about this project, contact: Marsha M. Seltzer, Ph.D., Boston University School of Social Work, 264 Bay State Road, Boston, MA 02115, (617) 353-3748, or: Marty W. Krauss, Ph.D., Brandeis University, Heller School, Waltham, MA 02254, (617) 647-3313.

Announcements

TASH Announces 11th Annual Conference

TASH The Association for Persons with Severe Handicaps has announced its 11th Annual Conference to be held at the McCormick Center Hotel in Chicago, Illinois, on November 8–10, 1984 The theme of the conference will be "New Life in the Community" featuring 3-day intensive workshops and panels around the theme of residential services for children and adults, other workshops and panel discussions, and an exhibit area. For more information, contact TASH, 7010 Roosevelt Way N E., Seattle, WA 98115, (206) 523-8446

Computer Conference Announced

"Discovery '84 Technology for Disabled Persons" is the theme for a national conference on computers and other technological products and services for people with disabilities to be held in Chicago on October 1–3, 1984. Sponsored by the University of Wisconsin-Stout Vocational Rehabilitation Institute, the conference will provide teachers, administrators, counselors, engineers, government personnel, researchers, purveyors of computer technology, and people with disabilities an opportunity to learn about advances in computer technology and innovations that are impacting special education and vocational rehabilitation programs Contact Office of Continuing Education and Summer Session, University of Wisconsin-Stout, Menomonie, WI 54751, (800) 22-STOUT (in Wisconsin); (800) 45-STOUT (outside of Wisconsin).

Aging and Rehabilitation A National Conference

A National Conference on the State-of-the-Art of Aging and Rehabilitation will be held on December 2–4, 1984, at the Washington-Plaza Hotel in Washington, D.C. The conference will be sponsored by the National Institute of Handicapped Research, the National Institute of Mental Health, and the National Institute on Aging, and will be coordinated by the Rehabilitation Research and Training Center in Aging Medical Center of the University of Pennsylvania The conference is intended for researchers, service providers, rehabilitation experts and older people themselves who are interested in exchanging a broad range of information on multiple aspects of rehabilitation services and policies for the older population. A primary purpose will be to plan for the development of a national rehabilitation policy which will encourage independent living and improve and sustain the quality of life for disabled elderly people, whatever the setting. For further information, contact: Virginia Smith, Department of Physical Medicine and Rehabilitation, University of Pennsylvania, 2010 Nursing Education Building/S2, Philadelphia, PA 19104, (215) 898-5675, ext. 1058.

Rural Rehabilitation Technologies Conference

The needs of rural disabled people will be the subject of an International Conference on Rural Rehabilitation Technologies to be held October 23-25 at the University of North Dakota in Grand Forks. The conference will be hosted by the UND Engineering Experiment Station and the UND Medical Center Rehabilitation Hospital. Major objectives are to lead to a better definition of the unique daily living and service delivery needs of rural disabled people and to a network of professional and lay organizations that serve the rural disabled population in order to share information on developments in rehabilitation technologies. For registration and preliminary programs, contact Conferences and Institutes, Attn: OCRRT Headquarters, Box 8277 University Station, Grand Forks, ND 58202, (701) 777-2663.

Independent Living Exposition Announced

The Second Annual Independent Living Exposition has been announced for October 5–7 at San Francisco's Civic Auditorium Formerly called the International Exposition for the Disabled, this year's show has been expanded to include the aging as well of persons with disabilities. Exhibits will feature home and health care, education and opportunities, mobility and communication, and comfort and convenience. The program will include speakers, seminars and workshops, sports competitions, entertainment and demonstrations, and a job fair. For further information, contact; George LaBar, Director, Independent Living Exposition, 2087 Union Street, San Francisco, CA 94123, (415) 346-1071.

Ski for Light Anniversary Announced

Ski for Light, Inc., a nonprofit organization whose mission is to sponsor physically demanding healthsports activities throughout the year, has announced its tenth anniversary celebration for February 10–17, 1985, in Summit County, Colorado. Ski for Light has sponsored an international cross-country ski event for visually and mobility impaired adults across the snow belt of North America since 1975 with separate events in various states. Experienced able-bodied cross-country skiers are needed to share the sport with skiers with disabilities, with a promise of growth for all concerned. For further information, contact: Ski for Light, Inc., 1455 West Lake Street, Minneapolis, MN 55408, (612) 827-3232.

NEW PUBLICATIONS

LEARNING DISABILITIES

Classroom Success for the Learning Disabled by Suzanne H. Stevens deals with learning disabilities in general and tells a story of a young man with developmental dyslexia in particular. It also deals with the world around the affected individual. The introduction, by Albert M. Galaburda, M.D., is a history of the discoveries relating to learning disabilities and the increasing recognition of the large numbers of affected individuals, and the impact of this prevalence on society. Especially written for elementary and middle school teachers, the author offers practical suggestions on recognizing the LD child, adjusting teaching techniques, adapting texts and other materials, using LD specialists and psychologists effectively, adjusting classroom management procedures, testing and grading fairly, and mainstreaming the LD child. This 314 page softcover book is available at $8.95 (cloth bound, $15.95) from: John F. Blair, Publisher, 1406 Plaza Drive, Winston Salem, NC 27103.

DRIVER TRAINING

In the Driver's Seat: Some Questions and Answers about Driver Training for the Stroke Patient is a consumer education pamphlet produced by the Driving School for the Disabled at Moss Rehabilitation Hospital. It provides basic information about the driver evaluation and training process, and addresses the need to be tested before returning to the wheel. It responds to the most commonly asked questions regarding returning to driving after a stroke. A free copy is available to people who have had strokes. Send a self-addressed stamped business-size envelope to Moss Rehabilitation Hospital, Box LL, 12th Street and Tabor Road, Philadelphia, PA 19141. Agencies, hospitals and physicians may order bulk quantities: *2–10 copies, $.20 each; 11–99 copies,* $.17 each; 100–499 copies, $.14 each; over 500 copies, $.10 each.

HOME CARE

All About Home Care: A Consumer's Guide, published by the National HomeCaring Council with assistance from the Council of Better Business Bureaus, is designed to educate consumers about what to look for in homemaker-home health aide and other home care services. It alerts consumers to problems faced by those seeking quality home care and suggests ways to overcome the problems. It discusses home care agencies, home care personnel, cost of home care and tips on finding assistance and planning payment. Single copies are available at $2 (or bulk orders at a discount) from: National HomeCaring Council, 235 Park Avenue South, New York, NY 10003, (703) 276-0100.

VOTER ACCESSIBILITY

Everyone Can Vote is the latest in a series of leaflets published by the National Easter Seal Society to promote hospitable, accessible environments for people with disabilities. It gives tips to help election workers make voting easier for persons with disabilities of various kinds. It suggests proper ways to greet those with severe vision loss, assist wheelchair users, and communicate with persons with hearing or speech impairments, and it lists ways for making sites accessible. For a free copy, send a self-addressed, stamped, business-size envelope to: National Easter Seal Society, 2023 W. Ogden Avenue, Chicago, IL 60612, (312) 243-8400. Quantity rates are available.

PERSONAL COMPUTERS

Personal Computers and the Disabled: A Resource Guide was prepared by Apple Computer, Inc. as a public service to stimulate research into personal computer applications for disabled people. The guide includes articles on how the computer is helping to overcome obstacles that once limited career opportunities and job performance, to communicate even when motor and speech functions are severely impaired, and to tap creativity in art, writing, and computer programming. It lists products for special needs and organizations and resource materials. The guide is available without charge from authorized Apple dealers (product number A2F0170).

GUIDE FOR FAMILIES

Living with the Disabled: You Can Help—A Family Guide by Jan Coombs is based on the author's experiences as a parent of a severely injured daughter. She stresses the role that family and friends can play in helping disabled people to lead useful, happy lives with suggestions on how to help, when not to, and where to go for needed resources. She follows the disabled person through hospitalization, rehabilitation, convalescence and return to community life. The book includes a directory of organizations which help various types of disability and which provide specific services. A softcover edition of this 192 page book is available at $9.95 postpaid from: Sterling Publishing Co., Inc., 2 Park Avenue, New York, NY 10016, (212) 532-7160.

NEW PUBLICATIONS

ACCESSIBILITY

Curb Cuts, a booklet recently released by the Eastern Paralyzed Veterans Association, contains the Federal guidelines for curb ramp design followed by the curb ramp standards, laws and regulations for the States of Connecticut, New Jersey, New York, and Pennsylvania. It includes tips on funding the construction of curb ramps based on EPVA's experience in working with numerous communities on curb ramp projects It is an attempt to anticipate every possible construction situation for which the installation of sidewalk and parking lot curb ramps is required Single copies of *Curb Cuts* are available without charge from Eastern Paralyzed Veterans Association, 432 Park Avenue South, New York, NY 10016, (202) 686-6770

TECHNOLOGY EDUCATION

Special Needs in Technology Education by Martin R Kimeldorf is intended to provide a framework for integrating special needs students into the industrial arts classroom A major point stressed is that if "mainstreaming" and "a least restrictive environment" are ever to be fully realized, a continuum of educational services (e.g., inservice, interdisciplinary efforts, adaptation of instruction or laboratory settings, remedial or tutorial services, and vocational evaluations) needs to be developed. Chapters cover coordinating special and technology education; student placement and evaluation; a detailed description of impairments; special education techniques applied to technology instruction; and accessibility to technology education. Included are lesson plans with photos and diagrams, small group projects, lists of curriculum resources and special equipment lists. This 285-page softcover book is available at $13.20 postpaid from Davis Publications, Inc., Worcester, MA 01608, (617) 754-7201.

INDIVIDUAL RIGHTS

Rights of Physically Handicapped Persons by Laura F Rothstein is primarily designed for members of the legal profession who deal with issues affecting physically handicapped persons, but will serve as a reference tool also for professionals in the fields of medicine, education and social services. Topics covered are education and higher education, employment, architectural and transportation system barriers, consumer issues, access to professional services, independent living, telecommunications access, right to family, access to government, and recreation, with a primary focus on Federal rather than State law. Copies of this hardbound 500-page book are available at $73.90 postpaid from: Shepard's/McGraw-Hill, P.O. Box 1235, Colorado Springs, CO 80901, (303) 475-7230.

EMPLOYMENT

Marketing Your Abilities: A Guide for the Disabled Job-Seeker was designed to assist the handicapped individual in conducting a successful job search. It explains how to write an effective resume and give a good interview, and how to discuss one's disability and need for accommodation. This 24-page publication (or a tape) is available at $2.50 from· Mainstream, Inc., 1200 15th Street, N W , Washington, DC 20005, (202) 833-1136 (Voice or TDD).

REHABILITATION OF DISABLED ELDERLY

The Summer 1984 issue of *Generations,* the quarterly journal of the Western Gerontological Society, focuses on rehabilitation of the older disabled population. The issue is divided into three main sections: 1) an overview of the concept of disability in the elderly and the extent to which disability exists in our society, and a discussion of the need for more attention in aggressively pursuing a rehabilitation approach in the care of the elderly; 2) specific aspects of a rehabilitation program, including how one identifies a disability, how to prevent disabilities induced by the health care system itself and how to maximize functional abilities in the older adult, and, since rehabilitation is a process of adaptation, a discussion of a person's adjustment to his or her condition and society's adaptation to the person; 3) an exploration of the need for further training and research in the area of caring for elders with disabling conditions. Short articles describing examples of programs that represent creative approaches to the aspects of rehabilitation covered in each section are included throughout. For a copy of the Summer 1984 issue of *Generations* (price, $7) or full subscription information, contact: Generations, 833 Market Street, Room 516, San Francisco, CA 94103, (415) 543-2617.

STROKE

Stroke Connection is a newsletter published 11 times a year by Courage Center in Minnesota. While some of the information is for and about services to people with stroke in the Upper Midwest, the newsletter also includes articles of national interest for individuals and families and for professionals who serve them. It is available without charge from: Courage Center, 3915 Golden Valley Road, Golden Valley, MN 55422, (612) 588-0811.